

40



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,724	11/29/2001	Hirokazu Kawamoto	862.C2450	1850
5514	7590	04/21/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			WOO, ISAAC M	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2166	
DATE MAILED: 04/21/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/995,724

Applicant(s)

KAWAMOTO ET AL.

Examiner

Isaac M. Woo

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-48, 58 and 60-75 is/are pending in the application.
- 4a) Of the above claim(s) 25-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 58 and 60-61, 63-66, 68-70 and 72-75 is/are rejected.
- 7) ☐ Claim(s) 62, 67 and 71 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/10/05 11/4/05</u>   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is in response to Applicant's Amendments on January 31, 2006 have been considered but are deemed moot in view of new ground of rejections below.
2. Claims 58 and 72 are amended. Claims 74 and 75 are newly added. Claims 1-24, 49-57 and 59 are canceled. Claims 25-48 are withdrawn. Claims 58 and 60-75 are presented for examination for this office action.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 58, 60-61 and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (U.S. Patent No. 5,899,985) in view of Callis et al (U.S. Patent No. 6,662,235, hereinafter, "Callis").

With respect to claim 58, Tanaka discloses, generating conflict process rules that defines conditions for avoiding a conflict between settings related to printing (col. 2,

lines 53-67 to col. 3, lines 1-34), a memory (120, work memory in fig. 21, col. 2, lines 34-43) configured to store a principal rule (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62) that corresponds to a part of the conflict process rules (101, matching module, fig. 1, col. 3, lines 1-7, matching module matches the rules stored in the rule base and generate conflict sets of rules and rules, step 70 to step 71, fig. 4); and an inference engine configured (from 10, inference processing module, fig. 1, 102, conflict resolving module, col. 3, lines 8-24) to generate a complementary rule (from the conflict resolving module, new work memory element is created to the work memory 120, fig. 21) that corresponds to the rest of the conflict process rules based on the principal rule stored in the memory (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62), (step 142-143, fig. 26, col. 3, lines 25-34), and to additionally write the complementary rule in the memory (120, write on to the work memory, fig. 21, fig. 26, col. 3, lines 14-24, complementary rules are generated by the conflict resolving module and resolves the conflict and stored (write) on the work memory 120, fig. 21, step 142-143, fig. 26, col. 2, lines 33-67 to col. 3, lines 1-35). Tanaka discloses wherein when the memory stores the principal rule for one state of one of the setting related to printing having two states (fig. 8, fig. 9, col. 18, lines 29-60, i.e., there are two states one for the problem matches with rule and one for not matches with problem), and does not store any principal rule for the other state (i, e., generating applicable rules based on principal rule, col. 3, lines 47-57). Tanaka discloses the inference engine generate for the one state as the complementary rule for the other state (col. 3, lines 47-57). Tanaka does not explicitly disclose inverse logic of the principal rule. However, Callis discloses "policy rule (345 in fig. 3) is selected

for execution based on plurality of individual policy conditions" (col. 8, lines 34-41), and "policy rules must ultimately result in a TRUE condition before associated actions are performed. However, it is to be understood that inverse logic may also be used in keeping with the present invention. To avoid confusion, as used herein with reference to an assessment of conditions for a policy rule, the terms "TRUE" or "met" will be used interchangeably and will refer to a condition or a combination of conditions which are satisfied by associated values of an event against which the complex policy rule is being applied" (fig. 3, col. 8, lines 42-55). This teaches that the policy rule (principal rule) is executed with inverse logic rule for "false" state of individual condition, instead of "true" state. Therefore, based on Tanaka in view of Callis, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to utilize the system of Callis to the system of Tanaka in order to provide policy rule for solution when the condition is false state using inverse logic.

With respect to claim 60, Tanaka discloses, conflict process rules as a conflict rule description file, see (120, work memory saves data as file form, col. 13, lines 12-19).

With respect to claim 61, Tanaka discloses, conflict rule description file is described in accordance with a predetermined markup language, see (col.12, lines 65-67 to col. 13, lines 1-11, graphical user interface, menu mode and multi-windows are displayed with browser, markup language).

With respect to claim 58, Tanaka discloses, generating conflict process rules that defines conditions for avoiding a conflict between settings related to printing (col. 2, lines 53-67 to col. 3, lines 1-34), a memory (120, work memory in fig. 21, col. 2, lines 34-43) configured to store a principal rule (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62) that corresponds to a part of the conflict process rules (101, matching module, fig. 1, col. 3, lines 1-7, matching module matches the rules stored in the rule base and generate conflict sets of rules and rules, step 70 to step 71, fig. 4); and an inference engine configured (from 10, inference processing module, fig. 1, 102, conflict resolving module, col. 3, lines 8-24) to generate a complementary rule (from the conflict resolving module, new work memory element is created to the work memory 120, fig. 21) that corresponds to the rest of the conflict process rules based on the principal rule stored in the memory (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62), (step 142-143, fig. 26, col. 3, lines 25-34), and to additionally write the complementary rule in the memory (120, write on to the work memory, fig. 21, fig. 26, col. 3, lines 14-24, complementary rules are generated by the conflict resolving module and resolves the conflict and stored (write) on the work memory 120, fig. 21, step 142-143, fig. 26, col. 2, lines 33-67 to col. 3, lines 1-35). Tanaka discloses wherein when the memory stores the principal rule for one state of one of the setting related to printing having two states (fig. 8, fig. 9, col. 18, lines 29-60, i.e., there are two states one for the problem matches with rule and one for not matches with problem), and does not store any principal rule for the other state (i, e., generating applicable rules based on principal rule, col. 3, lines 47-57).

Tanaka discloses the inference engine generate for the one state as the complementary rule for the other state (col. 3, lines 47-57). Tanaka does not explicitly disclose inverse logic of the principal rule. However, Callis discloses "policy rule (345 in fig. 3) is selected for execution based on plurality of individual policy conditions" (col. 8, lines 34-41), and "policy rules must ultimately result in a TRUE condition before associated actions are performed. However, it is to be understood that inverse logic may also be used in keeping with the present invention. To avoid confusion, as used herein with reference to an assessment of conditions for a policy rule, the terms "TRUE" or "met" will be used interchangeably and will refer to a condition or a combination of conditions which are satisfied by associated values of an event against which the complex policy rule is being applied" (fig. 3, col. 8, lines 42-55). This teaches that the policy rule (principal rule) is executed with inverse logic rule for "false" state of individual condition, instead of "true" state. Therefore, based on Tanaka in view of Callis, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to utilize the system of Callis to the system of Tanaka in order to provide policy rule for solution when the condition is false state using inverse logic.

With respect to claim 58, Tanaka discloses, generating conflict process rules that defines conditions for avoiding a conflict between settings related to printing (col. 2, lines 53-67 to col. 3, lines 1-34), a memory (120, work memory in fig. 21, col. 2, lines 34-43) configured to store a principal rule (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62) that corresponds to a part of the conflict process rules (101, matching

module, fig. 1, col. 3, lines 1-7, matching module matches the rules stored in the rule base and generate conflict sets of rules and rules, step 70 to step 71, fig. 4); and an inference engine configured (from 10, inference processing module, fig. 1, 102, conflict resolving module, col. 3, lines 8-24) to generate a complementary rule (from the conflict resolving module, new work memory element is created to the work memory 120, fig. 21) that corresponds to the rest of the conflict process rules based on the principal rule stored in the memory (110, rule base, fig. 21, col. 2, lines 34-43, col. 2, lines 53-62), (step 142-143, fig. 26, col. 3, lines 25-34), and to additionally write the complementary rule in the memory (120, write on to the work memory, fig. 21, fig. 26, col. 3, lines 14-24, complementary rules are generated by the conflict resolving module and resolves the conflict and stored (write) on the work memory 120, fig. 21, step 142-143, fig. 26, col. 2, lines 33-67 to col. 3, lines 1-35). Tanaka discloses wherein when the memory stores the principal rule for one state of one of the setting related to printing having two states (fig. 8, fig. 9, col. 18, lines 29-60, i.e., there are two states one for the problem matches with rule and one for not matches with problem), and does not store any principal rule for the other state (i, e., generating applicable rules based on principal rule, col. 3, lines 47-57). Tanaka discloses the inference engine generate for the one state as the complementary rule for the other state (col. 3, lines 47-57). Tanaka does not explicitly disclose inverse logic of the principal rule. However, Callis discloses "policy rule (345 in fig. 3) is selected for execution based on plurality of individual policy conditions" (col. 8, lines 34-41), and "policy rules must ultimately result in a TRUE condition before associated actions are performed. However, it is to be understood that inverse logic may also be used in



Art Unit: 2166

keeping with the present invention. To avoid confusion, as used herein with reference to an assessment of conditions for a policy rule, the terms "TRUE" or "met" will be used interchangeably and will refer to a condition or a combination of conditions which are satisfied by associated values of an event against which the complex policy rule is being applied" (fig. 3, col. 8, lines 42-55). This teaches that the policy rule (principal rule) is executed with inverse logic rule for "false" state of individual condition, instead of "true" state. Therefore, based on Tanaka in view of Callis, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to utilize the system of Callis to the system of Tanaka in order to provide policy rule for solution when the condition is false state using inverse logic.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 63-66, 68-70 and 72-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (U.S. Patent No. 5,899,985) in view of Callis et al (U.S.

Patent No. 6,662,235, hereinafter, "Callis") further in view of Ta et al (U.S. Patent No. 5,500,715, hereinafter, "Ta").

With respect to claim 63, Tanaka discloses, applying the plurality conflict process rules stored in the memory, see (step 141-143, fig. 26, col. 3, lines 25-35). Neither Tanaka nor Callis does not explicitly disclose, user interface for selection of print options, a conflict manager configured to resolve a conflict between the print options input via the user interface. However, Ta discloses, UI 14 (user interface) for relevant print menu information, see (col. 4, lines 52-67 to col. 5, lines 1-17, 104, 106, select option from pc setup menu, fig. 1, col. 7, lines 45-67 to col. 8, lines 1-5). And Ta discloses, print menu setup confliction by the user are resolved, see (col. 9, lines 28-53). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating user interface for selection of print options, a conflict manager configured to resolve a conflict between the print options input via the user interface as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to resolve print job confliction in the printing management system.

With respect to claim 64, Tanaka discloses, the plurality of conflict process rules, see (101, matching module, fig. 1, col. 3, lines 1-7, matching module matches the rules

stored in the rule base and generate conflict sets of rules and rules, step 70 to step 71, fig. 4). Neither Tanaka nor Callis does not explicitly disclose, description of an update command of the user interface. However, Ta discloses, description of an update (changes setup menu) command of the user interface, see (col. 8, lines 28-54).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating description of an update command of the user interface as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to update the user interface in the printing management system.

With respect to claim 65, Tanaka discloses, user interface (col. 12, lines 65-67 to col. 13, lines 1-11) and conflict manager, see (step 141-143, fig. 26, col. 3, lines 25-35). Neither Tanaka nor Callis does not explicitly disclose, user interface to change a display status of a display item of the setting state of the print option updated.

However, Ta discloses, user interface to change a display status of a display item of the setting state of the print option updated, see (col. 8, lines 28-54). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating user interface to change a display status of a display item of the setting state of the print option updated as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's

Art Unit: 2166

system the enhanced and user-friendly user interface to change the user interface in the printing management system.

With respect to claim 66, neither Tanaka nor Callis does not explicitly disclose, grayout or display/non-display of the display. However, Ta discloses, grayout (graysacle) or display/non-display of the display with display screen 310 of PC 5 in the fig. 3, see (col. 7, lines 45-67). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating grayout or display/non-display of the display as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to display information in the printing management system.

With respect to claim 68, Tanaka discloses, applying the plurality conflict process rules stored in the memory, see (step 141-143, fig. 26, col. 3, lines 25-35). Neither Tanaka nor Callis does not explicitly disclose, user interface for selection of print options, resolving a conflict between the print options input via the user interface. However, Ta discloses, UI 14 (user interface) for relevant print menu information, see (col. 4, lines 52-67 to col. 5, lines 1-17, 104, 106, select option from pc setup menu, fig. 1, col. 7, lines 45-67 to col. 8, lines 1-5). And Ta discloses, print menu setup confliction by the user are resolved, see (col. 9, lines 28-53). Therefore, it would have been

obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating user interface for selection of print options, resolving a conflict between the print options input via the user interface as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to resolve print job confliction in the printing management system.

With respect to claim 69, Tanaka discloses, user interface (col. 12, lines 65-67 to col. 13, lines 1-11) and resolving, see (step 141-143, fig. 26, col. 3, lines 25-35). Neither Tanaka nor Callis does not explicitly disclose, user interface to change a display status of a display item of the setting state of the print option updated. However, Ta discloses, user interface to change a display status of a display item of the setting state of the print option updated, see (col. 8, lines 28-54). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating user interface to change a display status of a display item of the setting state of the print option updated as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to change the user interface in the printing management system.

With respect to claim 70, neither Tanaka nor Callis does not explicitly disclose, grayout or display/non-display of the display. However, Ta discloses, grayout (graysacle) or display/non-display of the display with display screen 310 of PC 5 in the fig. 3, see (col. 7, lines 45-67). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating grayout or display/non-display of the display as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to display information in the printing management system.

With respect to claims 72-73, Tanaka discloses, applying the plurality conflict process rules stored in the memory, see (step 141-143, fig. 26, col. 3, lines 25-35). Neither Tanaka nor Callis does not explicitly disclose, to display user interface for selection of print options, and resolve a conflict between the print options input via the user interface. However, Ta discloses, UI 14 (user interface) for relevant print menu information, see (col. 4, lines 52-67 to col. 5, lines 1-17, 104, 106, select option from pc setup menu, fig. 1, col. 7, lines 45-67 to col. 8, lines 1-5). And Ta discloses, print menu setup confliction by the user are resolved, see (col. 9, lines 28-53). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify by incorporating to display user interface for selection of print options, and resolve a conflict between the print options input via the user

interface as discussed by Ta. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Tanaka's system the enhanced and user-friendly user interface to resolve print job confliction in the printing management system.

***Allowable Subject Matter***

7. Claims 62, 67 and 71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 62, the prior art (Tanaka) discloses, the conflict process rule description file. The prior art fails to suggest the claimed features "describes a local rule which can be applied to only a specific printing device, and a universal rule description file that describes a universal rule which can be commonly applied to a plurality of printing devices is externally referred to".

Regarding claims 67 and 71, the prior art (Tanaka) discloses, the conflict process rule. The prior art fails to suggest the claimed features "defines a condition for avoiding a conflict between at least two print options among Collate printing, Group printing, Staple finishing and Booklet printing".

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.




**Contact Information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IW  
April 14, 2006

  
JEAN M. CORRIELLUS  
PRIMARY EXAMINER